Class			
Date			
Period			

The first axis

The role of information and communication technology in our lives.

**Lesson 1
Active explorer**

Introductory question:

What types of technology are used in exploring the Earth At ?

Objective:-

At the end of the lesson the student will be able to:

* learns some of the technology tools used in exploring the Earth .
* Suggests scientific terms related to technology
* Describes how technology can be used to search for underground.

The strategy used :

the critical thinking and problem solving

Accompanying activities

Companions students to the computer room, Divide them into small groups and discuss with them the role of technology in the life of the scientists archaeologists and the way it works .
Using a presentation or video of the scientist Albert Lin and how it works ,
 then ask them the introductory question.

the Presentation of the lesson :

The importance of technological tools scientists that they help Or allow scientists to explore in simple and easy ways that save effort and cost Two The scope of the search in excavation for antiquities.
The most important tools that scientists use
1 Images through satellite and drone.
2 Global Positioning System GPS
3 measurement the magnetism and ground-penetrating radar.

The evaluation:

 What do archaeologists do when they don't know where they should dig?

Preparatory question :

What is the most common way for you to communicate with others?

Class			
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The first axis

The role of information and communication technology in our lives.

Lesson 2
technology and its development in history

Introductory question:

What are the methods that you use to record information?

Objective:-

At the end of the lesson the student will be able to:

* discuss the history of information and communication technology
* discuss how technology is used in our daily life
* develop his computer writing skills

The strategy used :

Critical thinking, problem solving,

Accompanying activities

Taking the students to the computer room and dividing them into small groups and discussing with them technology and its historical development through different eras, quoting from a presentation or a video showing the ancient and modern methods of communication from the era of the Pharaohs to the modern era.

the Presentation of the lesson :

Stages of technology development over time:
* The era before the mechanical revolution (photos and drawing)
* The era of the mechanical revolution (typewriter - Pascaline instrument)
The era of the electromechanical revolution (telephone and recording device)
* The era of the electronic revolution (smartphone, satellite and e-mail)

The evaluation:

solving student book questions, page 15 16 17.

Preparatory question :

What is a computer made of?

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The first axis

The role of information and communication technology in our lives.

Lesson 3
Components of a computer

Introductory question:

How can you use technology in your daily life?

Objective:-

At the end of the lesson the student will be able to:

* Explains the basic components that make up a computer
* defines the concept of input, output and data.
* describe Types of different computers

The strategy used :

Critical thinking, problem solving,

Accompanying activities

Taking the students to the computer room and dividing them into ambassador groups. I will discuss with you the most important components of the components needed to use the computer in a particular task, such as making a photo album and entering its data.

the Presentation of the lesson :

Components of a computer:

1- Input devices:

Keyboard. Mouse. Microphone. Camera. Scanning.

2- Output devices:

Display - Braille terminal system - Speakers - Printer - Speech synthesizer

The evaluation:

In your opinion, what are the components of a computer that benefit people of determination

Preparatory question :

How does a computer communicate with you and carry out commands?

Class			
Date			
Period			

The first axis

The role of information and communication technology in our lives.

Lesson 4
Software and operating systems

Introductory question:
How does the computer communicate with you and carry out your orders?

Objective:-
At the end of the lesson the student will be able to:
* Explains the main operations of operating systems and software
* Explain the difference between hardware and software

The strategy used :
concept maps , problem solving,

Accompanying activities
Taking the students to the computer room and dividing them into small groups and showing them a video of how the operating system works and how it controls hardware and software, then discussing the schematic diagram in the book of how to process data and asking them to make drawings similar to the stages of another program.

the Presentation of the lesson :
Software: a set of commands and instructions that guide a computer on how to do its work. Software is responsible for operating and controlling a computer, and expanding the capabilities of its processing operations.

Software types:
* System software: These are programs that are designed to operate and control a computer.
* Application software: It represents a group of software designed to help the user accomplish tasks on the computer, such as creating documents, developing databases, conducting online research and designing graphics.

Hardware: Hardware is defined as the tangible units through which data can be entered and information extracted.

The evaluation: solving student book questions, page 24 and 25

Preparatory question : How technology can help people of determination.

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prim 1term

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Class			
Date			
Period			

The first axis

The role of information and communication technology in our lives.

Lesson 5
Support people of determination

Introductory question:
How technology can help people of determination.

Objective:-
At the end of the lesson the student will be able to:

- Explain the definition of assistive technology
- Discusses how technology improves people's lives
- Suggests a technological means that can contribute to improving the lives of others

The strategy used :
Brainstorming and problem solving

Accompanying activities
Taking the students to the computer room and dividing them into small groups and showed them a video of the scientist Albert Lane who works even though his leg was amputated, which did not make him stand in the way of his success. Describe it to their colleagues

the Presentation of the lesson :
Assistive Technology for People of Determination: which is defined as (any material, piece, product system, or thing that is modified or made according to demand in order to increase the scientific or functional efficiency of people of determination).

Examples of assistive technology

- Screen magnification software: (for people with low vision)
- Hearing aids :(for people with hearing problems)
- Alternative communication software :(facilitating oral and linguistic communication)
- Sports equipment :(prosthetic devices and Paralympic athletes' devices)

The evaluation:
solving student book questions, page 28 and 29

Preparatory question :
What problems related to information technology have you encountered in your life?

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Date			
Period			

The role of information and communication technology in our lives.

Lesson 6
ICT : common problems and solutions

Introductory question:
What problems related to information technology have you encountered in your life?

Objective:-
At the end of the lesson the student will be able to:
- Discusses the problems encountered in the field of information and communication technology
- Discusses problems that others may encounter while using technology
- Suggests solutions to address common ICT problems

The strategy used :
Brainstorming and problem solving

Accompanying activities
Take the students to the computer room and divide them into small groups and ask them an introductory question, and then we start a brainstorming process among the students to exchange experiences and discuss about the problems they faced in terms of information technology and possible solutions for each problem.

the Presentation of the lesson :
Some potential problems and solutions:
- Not being able to open an app (restart - update the app - reinstall)
- Mouse pointer does not work (make sure the cable is connected - restart - replace the mouse)
- Unable to find a file (search in documents or through the search box in the start menu)
- Screen stops displaying data (pressing alt + ctrl + del - end task - restart)
- Keyboard has stopped (make sure the cable is connected - restart - replace the keyboard)

The evaluation:
solving student book questions, page 32 and 33

Preparatory question :
How digital media can help you organize your information?

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prim 1term

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Class			
Date			
Period			

The first axis

The role of information and communication technology in our lives.

**Lesson 7
Data collection, analysis, and Expression in graphs**

Introductory question:

How digital media can help you organize your information?

Objective:-

At the end of the lesson the student will be able to:

- Identifies the digital means they can use to organize information
- Provides information about a student problem by collecting, analyzing, and graphing data
- He discusses with his classmates common questions about the students

The strategy used :

Brainstorming and problem solving

Accompanying activities

Take the students to the computer room and divide them into small groups and ask them an introductory question and then start a brainstorming process among the students to deduce some methods that we can adopt to collect data, analyze it and express it in graphs

the Presentation of the lesson :

The most common sources of data collection:-
Books and articles - opinion polls - records and reports - experiences

- **Graph:**

The column chart is the most common data representation as it displays different categories of information and compares them clearly by drawing or using the Excel program.

The evaluation:

solving student book questions, page 36 and 37

Preparatory question :

What is the importance of communicating through technology with others?

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Date			
Period			

The first axis

The role of information and communication technology in our lives.

Lesson 8
Reporting for research results

Introductory question:

What is the importance of communicating through technology with others?

Objective:-

At the end of the lesson the student will be able to:

- Discusses different ways of communicating through electronic means.
- Explains how to use various technological means to communicate with others.
- Communicates via electronic means with colleagues and teachers.

The strategy used :

Critical thinking and collaborative learning

Accompanying activities

Taking the students to the computer room and dividing them into small groups and asking them the introductory question, and then we start the discussion among the students, explaining what scientists have come up with in different ways and showing the most common way to share data, which is e-mail, by reading the graph in the book.

the Presentation of the lesson :

The most common ways to share data:

E-mail: In which you can write a short report with relevant files

Video chats   -   Text messages

Multiple tools for preparing reports and results:

1- digital blogging   2- E-mail   3- Text messages   4- TV programs
5- Digital published articles   6- Social networking sites   7- Video chats

The evaluation:

solving student book questions, page 40 and 41

Preparatory question :

General review on the first axis, pages 42 and 43

Class			
Date			
Period			

Review on the first axis

Q1: Write the scientific term :-

1- We use it to detect and find minerals in the ground. (………………..)

2- A means of locating something by satellite. (………………..)

3- All sites offer voice chat service. (………………..)

4- A device used to input and output data at the same time. (………………..)

5- A type of computer that can be carried anywhere. (………………..)

Q2: Put a mark (√) or a mark (Χ) in front of each of the following statements.

1- Albert Lynn was a lawyer and a soccer player. ( )

2- The method of excavation to detect antiquities is the ideal method. ( )

3- GPS is used to detect underground objects. ( )

4- The explorer searches for antiquities from the ground. ( )

5- Navigator collects information from images drawn through satellites. ( )

6- You don't have to be a scientist or an engineer to use a computer. ( )

7- The first computer was discovered in the era of the mechanical revolution. ( )

8- The printer that was used to print books was established in the era before the mechanical revolution ( )

9- GPS inventions in the era of the electro-mechanical revolution from 1840 to 1940. ( )

10- A type of tablet computer. ( )

11- From the keyboard input device. ( )

12- The data processing stage precedes the data entry stage. ( )

13- The microphone outputs the sound from the computer. ( )

14- A scanner that writes text in Braille. ( )

15- Every computer must have an operating system. ( )

Class			
Date			
Period			

The Second axis

Digital Safety Precautions

**Lesson 1
Active explorer**

Introductory question:

How can the Internet help you discover more information about the things and people you care about?

Objective:-

At the end of the lesson the student will be able to:

- He talks about the power of the internet to make the world a better place
- Describes how technology is used to communicate with others
- Explains why technology solutions should be compatible with the lives of others

The strategy used :

Critical thinking and problem solving

Accompanying activities

Take the students to the computer room and divide them into small groups and ask them the introductory question, then we watch a video clip about elegant oleh and how he explored

lemon trees and the results of their research.

the Presentation of the lesson :

- **The importance of the Internet in our lives :**

The Internet gives us access to all kinds of information.

- **The right way to search in encyclopedias and search engines.**
- **How to check information sources.**
- **Create online awareness campaigns.**

The evaluation:

solving student book questions, page 48 and 49

Preparatory question :

What security measures do you follow while using the Internet?

Class			
Date			
Period			

The Second axis

Digital Safety Precautions

Lesson 2
The risks associated with the Internet
and means of protection from them

Introductory question:

What security measures do you follow while using the Internet?

Objective:-

At the end of the lesson the student will be able to:
- Describe the risks and harms associated with the Internet
- Explains the importance of keeping personal information private and not disclosing it
- Discusses ways to maintain safety measures while using the Internet

The strategy used :

Critical thinking and collaborative learning

Accompanying activities

Take the students to the computer room, divide them into small groups, ask an introductory question and ask each group to make a list of safety tips related to using the Internet.

the Presentation of the lesson :

Unsafe websites
1- Do not click on unknown links.
2- Block annoying websites and inform family members.

Sharing data and information on the Internet
1- Do not share personal data to avoid spam messages.
2- Think carefully before posting the contents of photos and videos.

Download files
1- Ensure that the downloaded files are free of viruses.
2- Make sure to check the reliable sources for downloading the files.

The evaluation:

solving student book questions, page 52 and 53

Preparatory question :

What positive messages have you seen on the Internet?

Class			
Date			
Period			

The Second axis

Digital Safety Precautions

Lesson 3
Use ICT tools in a correct and ethical manner

Introductory question:

What positive messages have you seen on the Internet?

Objective:-

At the end of the lesson the student will be able to:

- It discusses posting messages to communicate positively on the Internet.
- Explains the ethics of using information technology tools.
- Explains the positive and negative effects of using ICT tools.

The strategy used :

Brainstorming and critical thinking

Accompanying activities

Take the students to the computer room and divide them into small groups and ask them an introductory question and ask each group to discuss positive messages that can be published and shared with their colleagues and the ethics of dealing with the Internet.

the Presentation of the lesson :

Ethics of using ICT tools.

1- Respect privacy while posting information.
2- Mention the source and source of the information.
3- Respect for the law.

Positive effects of using IT tools.

1- The ability to communicate with family and friends easily.
2- It is considered as a treasure trove of different and useful information.
3- A huge library of useful videos and photos.

Disadvantages of using IT tools.

1- The effect on health due to eye strain.
2- The use of the Internet can pose a threat to the time of its users.
3- Much of this information is not subject to censorship or audit to review its content.

The evaluation:

solving student book questions, page 56 and 57

Preparatory question :

What problems do you face while searching in the Internet?

4 th prim 1term

Class			
Date			
Period			

The Second axis

Digital Safety Precautions

Lesson 4
How to search the internet?

Introductory question:
What problems do you face while searching in the Internet?

Objective:-
At the end of the lesson the student will be able to:
- Explains how to use Internet browsers
- It discusses the method of selecting keywords to be used in Internet searches

The strategy used :
Critical thinking and problem solving

Accompanying activities
Take the students to the computer room and divide them into small groups and ask them the introductory question and whether they always find the information they searched for on the Internet, explaining the safe and smart methods of searching on the Internet.

the Presentation of the lesson :
Search in a safe way:
1- Observe the browser's security alerts
2- Use search engines for children
3- Make sure to browse websites suitable for your age group

Search in a smart way:
1- Write long sentences to get better results while specifying what you are looking for.
2- The ability to search by images using the camera button in the search engine.
3- In order to ensure that your research includes two specific topics, we put a + sign between them during the search.
4- To ensure that your search does not include a specific result, we put a tick before the words that you do not want to be included in the search.

The evaluation:
solving student book questions, page 60 and 61

Preparatory question :
How do you determine whether the information you find on the Internet is correct or not?

Class			
Date			
Period			

The Second axis

Digital Safety Precautions

**Lesson 5
How to verify the authenticity of information on the Internet**

Introductory question:

How do you determine whether the information you find on the Internet is correct or not?

Objective:-

At the end of the lesson the student will be able to:

- He talks about the power of the internet to make the world a better place
- Describes how technology is used to communicate with others
- Explains why technology solutions should be compatible with the lives of others

The strategy used :

Critical thinking and collaborative learning

Accompanying activities

Take the students to the computer room and divide them into small groups and ask them an introductory question and discuss their findings using a presentation on how to identify reliable and unreliable sources on the Internet.

the Presentation of the lesson :

Unreliable internet sources:

Blogs, open source websites, Wikipedia, and social media applications are considered unreliable sources because they may contain personal opinions and misconceptions.

Ensure reliable sources.

1- Verify the date of publication and the identity of the authors, whether they are experienced figures or not.
2- The text is free from errors, well written and professionally designed.
3- Sites that end with (gov, org, edu) have a high degree of credibility because they are managed by government agencies.

Egyptian Knowledge Bank

It was created to facilitate access to information that has already been verified through a large library inside.

The evaluation:

solving student book questions, page 64 and 65

Preparatory question : How do you act if someone offends you on the Internet?

4 th
prim 1term

Class			
Date			
Period			

The Second axis

Digital Safety Precautions

**Lesson 6
Who can help you solve your
problems while using the internet?**

Introductory question:

How do you act if someone offends you on the Internet?

Objective:-

At the end of the lesson the student will be able to:

- Explains some common problems when using the Internet.
- Determines the person who can help him with problems using the Internet.
- Describe the role of the Cybercrime Department.

The strategy used :

Critical thinking and problem solving

Accompanying activities

Take the students to the computer room, divide them into small groups, ask them an introductory question, and ask each group to make a list of possible problems and ways to solve them, then compare them with the other groups.

the Presentation of the lesson :

Common problems when using the Internet:

1- Bullying: It is the behavior of one person in a bad way towards another person, such as obscene posts, bad messages or harmful texts.
2- Identity theft: When someone collects information about you and uses it to impersonate or defraud you, it is called identity theft and the thief can use your personal information and access your address and phone.

Steps to face problems online:

1- Telling an adult you trust in this matter, such as the father and the mother
2- The matter may require the intervention of the competent authorities (the police, the Internet Crimes Control Department).

The evaluation:

solving student book questions, page 68 and 69

Preparatory question :

Why is it important to use strong passwords?

4 th prim 1term

Class			
Date			
Period			

The Second axis

Digital Safety Precautions

**Lesson 7
A personal digital security plan**

Introductory question:
Why is it important to use strong passwords?

Objective:-
At the end of the lesson the student will be able to:
- Describe the importance of creating a strong password.
- Explains the importance of powerful antivirus software
- Explains ways to protect devices from potential risks to the Internet.

The strategy used :
Critical thinking and collaborative learning

Accompanying activities
Take the students to the computer room, divide them into small groups, ask them the introductory question, and discuss how to protect their devices, compare the plans of each group, and share information among the students.

the Presentation of the lesson :
Create a strong password:
It is important to have a strong password to protect your device and personal accounts from hacking and hacking. To obtain a strong password, the following should be taken into account:
- Do not use a single password for all your accounts.
- Keep passwords in a safe place.
- The password does not include your name or other personal information.
- The password must consist of at least 8 letters and numbers together and not be easy to predict.

Choose an antivirus software
Personal safety when using the Internet.

The evaluation:
solving student book questions, page 72 and 73.

Preparatory question :
What topic do you want to research and why?

4 th prim 1term

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Class			
Date			
Period			

The Second axis

Digital Safety Precautions

**Lesson 8
Apply what you've learned**

Introductory question:

What topic do you want to research and why?

Objective:-

At the end of the lesson the student will be able to:

- He discusses topics he would like to research with his colleagues.
- Choose an important topic to educate others.
- Choose an appropriate tool to display the information.

The strategy used :

Critical thinking and problem solving

Accompanying activities

Taking the students to the computer room, dividing them into small groups, asking them an introductory question and discussing with them how to prepare a report on the topic of the research, touching on the different ways of making reports and how to present it.

the Presentation of the lesson :

The most important ways to view reports

1- **Power Point :** It is a fun way to present ideas to others through slides
2- video clips
3- advertising posters

The evaluation:

solving student book questions, page 76 and 77.